

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Air Permit Review

Permit Issue Date:

Region: Raleigh Regional Office
County: Northampton
NC Facility ID: 6600041
Inspector's Name: Will Wike
Date of Last Inspection: 05/01/2015
Compliance Code: 3 / Compliance - inspection

Facility Data Applicant (Facility's Name): West Fraser - Seaboard Lumber Mill Facility Address: West Fraser - Seaboard Lumber Mill 4400 NC Highway 186 East Seaboard, NC 27876 SIC: 2421 / Sawmills & Planing Mills General NAICS: 321113 / Sawmills Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V				Permit Applicability (this application only) SIP: N/A NSPS: N/A NESHAP: N/A PSD: N/A PSD Avoidance: N/A NC Toxics: N/A 112(r): N/A Other: Revise testing frequency under 02D .1109, "Case-by-Case MACT"			
Contact Data				Application Data			
Facility Contact James Barham EHS Supervisor (252) 589-8265 PO Box 459 Seaboard, NC 27876	Authorized Contact Wilbur Warren General Manager (252) 589-8202 PO Box 459 Seaboard, NC 27876	Technical Contact James Barham EHS Supervisor (252) 589-8265 PO Box 459 Seaboard, NC 27876	Application Number: 6600041.16B Date Received: 07/18/2016 Application Type: Modification Application Schedule: TV-Significant Existing Permit Data Existing Permit Number: 03937/T23 Existing Permit Issue Date: 02/05/2016 Existing Permit Expiration Date: 09/30/2016				
Total Actual emissions in TONS/YEAR:							
CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2014	8.88	78.17	292.80	213.21	48.37	33.90	13.95 [Methanol (methyl alcohol)]
2013	9.41	82.85	292.99	225.92	68.63	34.71	13.94 [Methanol (methyl alcohol)]
2012	7.53	66.19	279.76	180.51	57.83	30.94	13.36 [Methanol (methyl alcohol)]
2011	6.35	55.89	236.69	152.41	50.36	26.16	11.31 [Methanol (methyl alcohol)]
2010	5.83	51.26	211.83	139.82	43.65	23.62	10.11 [Methanol (methyl alcohol)]
Review Engineer: Betty Gatano Review Engineer's Signature: _____ Date: _____					Comments / Recommendations: Issue 03937/T24 Permit Issue Date: Permit Expiration Date:		

1. Purpose of Application

West Fraser - Seaboard Lumber Mill (West Fraser) currently holds Title V Permit No. 03937T23 with an expiration date of September 30, 2016 for a sawmill in Seaboard, Northampton County, North Carolina. This permit application is a significant permit modification under 15A NCAC 02Q .0501(c)(1) to change testing requirements. Because the testing requirements are being made less stringent (i.e., the testing frequency is being decreased), this permit modification is appropriately classified as a significant modification and must be sent to public notice.

2. Facility Description

West Fraser operates a sawmill processing southern yellow pine into lumber. Various uses have been found for the by-products. Primarily sawdust is burned in the older two wood fired boilers (ID Nos. ES-NB and ES-SB). A sawdust-bark mixture is burned in the newer boiler (ID No. ES-3). The steam produced by these boilers is used to heat the drying kilns. Rejected boards are chipped and sent to the KapStone Kraft Paper mill in Roanoke Rapids, NC. KapStone in return ships sawdust to West Frazier.

3. Application Chronology

June 28, 2016	Call between West Fraser personnel and DAQ staff from the Permitting Section, the Raleigh Regional Office, and the Stationary Source Compliance Branch. The required testing under the Case-by-Case MACT and potential compliance issues were discussed.
June 28, 2016	Betty Gatano sent an e-mail to James Barham of West Fraser providing an overview of information needed in the permit application to modify the testing requirements.
July 18, 2016	Received application for permit modification.
July 25, 2016	Sent acknowledgment letter indicating the application for permit modification was complete.
July 28, 2016	Draft permit and permit review forwarded for comments.
August 3, 2016	Comments received from Mark Cuilla, Permitting Supervisor.
August 9, 2016	James Barham indicated via e-mail the facility had no comments.
August 10, 2016	Draft permit sent to public notice.

4. Permit Modifications/Changes

The following table describes the changes to the current permit as part of the modification process.

Pages	Section	Description of Changes
Cover and throughout	--	Updated all dates and permit revision number.
3	Section 1.0	Added page numbers.
7	2.1.A.5.b.i	Changed testing language to allow testing every five years for any pollutant with emission rates less than or equal to 80 percent of the allowable limit under 15A NCAC 02D .1109, "Case-by-Case MACT."
--	2.3.B	Removed requirements under 15A NCAC 2Q .0705, "Existing Facilities and SIC Calls." This regulation was repealed on May 1, 2014.

5. Background and Changes to Testing Requirements

On August 5, 2015, West Fraser was issued Air Permit No. 03937T22 for two new direct wood-fired continuous track lumber kilns (ID Nos. ES-DK1 and ES-DK2). Construction on the new kilns began in March of 2016, and the kilns were originally anticipated to become operational in September 2016. Once the new kilns are operational, West Fraser will permanently shutdown all three of its existing wood fired boilers (ID Nos. ES-NB, ES-SB, and ES-3) and its four existing steam heated lumber drying kilns (ID Nos. ES-3LDK, ES-2ALKD, ES-4LKD, and ES1ALDK). These units will be decommissioned, removed and/or destroyed.

The three wood-fired boilers (ID Nos. ES-NB, ES-SB, and ES-3) are subject to 15A NCAC 02D .1109, Case-by-Case MACT. West Fraser was required to conduct stack testing of the boilers to demonstrate compliance with allowable limits under the Case-by-Case MACT for carbon monoxide (CO), hydrochloric acid (HCl), mercury (Hg), and total selective metals (TSM). Initial stack testing had to be completed within 180 days of the compliance date of May 16, 2014.

West Fraser tested the boilers over a period from April 29 to May 2, 2014. The test results were reviewed and approved by David Hughes of the Stationary Source Compliance Branch in a memorandum dated September 24, 2014. In all cases, the boilers demonstrated compliance with the allowable limits under the Case-by-Case MACT, as shown in the table below.

Pollutant	Emission Rate	Emission Limit	% of Emission Limit	Compliance
Wood-Fired Boiler (ID No. ES-NB): April 30 and May 1, 2014				
CO	268 ppmvd @7% O ₂	508 ppmvd @7% O ₂	53%	Yes
HCl-Equivalent	<0.22 lb/hr			
	<0.65 lb/hr (from all three boilers combined)	188.5 lb/hr (from all three boilers combined)	<1%	Yes
Mercury	<9.56E-07 lb/mmBtu	5.0E-06 lb/mmBtu	<19%	Yes
TSM	<3.29E-05 lb/mmBtu	0.0003 lb/mmBtu	<11%	Yes
Heat Input Rate	31.1 mmBtu/hr	---	--	---
Wood-Fired Boiler (ID No. ES-SB): April 29, 2014				
CO	453 ppmvd @7% O ₂	508 ppmvd @7% O ₂	89%	Yes

Pollutant	Emission Rate	Emission Limit	% of Emission Limit	Compliance
HCl-Equivalent	<0.23 lb/hr			
	<0.65 lb/hr (from all three boilers combined)	188.5 lb/hr (from all three boilers combined)	<1%	Yes
Mercury	<8.80E-07 lb/mmBtu	5.0E-06 lb/mmBtu	<18%	Yes
TSM	<2.21E-05 lb/mmBtu	0.0003 lb/mmBtu	<7%	Yes
Heat Input Rate	32.5 mmBtu/hr	---	--	---
Wood-Fired Boiler (ID No. ES-3): May 2, 2014				
CO	296 ppmvd @7% O ₂	508 ppmvd @7% O ₂	58%	Yes
HCl-Equivalent	<0.20 lb/hr			
	<0.65 lb/hr (from all three boilers combined)	188.5 lb/hr (from all three boilers combined)	<1%	Yes
Mercury	<8.60E-07 lb/mmBtu	5.0E-06 lb/mmBtu	<16%	Yes
	<6.5E-04 lb/day	0.013 lb/day	<5%	Yes
TSM	<5.59E-05 lb/mmBtu	0.0003 lb/mmBtu	<19%	Yes
Heat Input Rate	31.5 mmBtu/hr	---	--	---

On February 5, 2016, the permit was modified via an administrative amendment to extend subsequent testing of the wood fired boilers (ID Nos. ES-NB, ES-SB, and ES-3) to 22 to 30 months from the initial stack test. This change would delay the required testing until the after the construction and operation of the new kilns and the shutdown of the boilers expected in September 2016. However, West Fraser informed the DAQ in a phone call on June 28, 2016 that construction has been delayed. The new kilns are not expected to be operational until early 2017.

On July 15, 2016, West Fraser submitted a permit application to modify the testing requirements for the wood fired boilers (ID Nos. ES-NB, ES-SB, and ES-3) under the Case-by-Case MACT. West Fraser is requesting to conduct stack testing every five years for pollutants with emission rates less than or equal to 80 percent of the allowable limits. Biennial testing (every 2 year) will be required for all pollutants with emission rates within 80 percent of the allowable limits. This testing frequency is consistent with boilers subject to the Case-by-Case MACT at other lumber kilns across the state.

The DAQ agrees this change in testing language is appropriate and is consistent with other lumber mills. DAQ will revised the testing language for the wood fired boilers (ID Nos. ES-NB, ES-SB, and ES-3) under the Case-by-Case MACT as part of this permit modification. The revised testing language is provided below:

Section 2.1.A.5

Compliance Testing [15A NCAC 02Q .0508(f)]

- b. *To demonstrate compliance with the standards provided in Section 2.1 A.5.a above, the Permittee shall conduct compliance tests for each listed pollutant. The Permittee may choose either of the following methods for the compliance tests:*
 - i. *Initial & Periodic Stack Testing. Stack testing shall be performed in accordance with General Condition JJ. Tests may not be conducted during periods of startup, shutdown, or malfunction. Following the initial compliance test, the Permittee shall test the boiler biennially. Following the initial stack test, each test shall be conducted between 22 and*

30 months after the previous stack test. However, if a stack test shows that the emission rate of any pollutant is less than or equal to 80 percent of the allowable limit, the stack test frequency shall be reduced to once every five years for that pollutant.

- ii. *Periodic Fuel Analysis. The Permittee may use a fuel analysis to demonstrate compliance with the mercury and/or HCl standards. Fuel analyses shall be conducted annually. Following the initial fuel analysis, each analysis shall be conducted between 11 and 13 months after the previous analysis. If a fuel analysis shows a potential exceedance of an emission limitation in Section 2.1 B.5.a above, the Permittee shall conduct a follow-up stack test of the affected source within 90 days. If the follow-up stack test shows an exceedance of the limit, the Permittee shall be deemed in non-compliance with 15A NCAC 02D .1109.*

The initial compliance test shall be conducted within 180 days of the initial compliance date. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1109 if the required compliance tests are not conducted, or if the results of a compliance test exceed a limit in Section 2.1 A.5.a above.

As noted in the table above, CO emissions from wood-fired boiler (ID No. ES-SB) were 89 percent of the allowable emission limit under the Case-by-Case MACT. West Fraser must conduct CO emission testing for this boiler within 22 to 30 months of the prior testing, which began on April 29, 2014. Therefore, the testing for CO from wood-fired boiler (ID No. ES-SB) must be completed no later than October 31, 2016. If West Fraser does not complete the testing by this date or the test results exceed the allowable emission limits, the facility will be deemed in noncompliance with the Case-by-Case MACT.

7. Regulatory Review

The status of the facility has not changed since the issuance of Air Permit No. 03937T22 on August 5, 2015. Please refer to the permit review for Air Permit 03937T22 for a discussion of the regulatory review and facility emissions.¹

8. Compliance Status

DAQ has reviewed the compliance status of this facility. During the most recent inspection, conducted on May 1, 2015 by Will Wike of the Raleigh Regional Office, the facility appeared to be in compliance with all applicable requirements.

9. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA. Also pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 02Q .0521 above. Virginia is an effected state within 50 miles of the facility.

10. Other Regulatory Considerations

¹ Gautam Patnaik (August 5, 2015).

- A P.E. seal is NOT required for this application.
- A zoning consistency determination is NOT required for this application.
- A permit fee is required for a significant modification and was included with the permit application.

11. Recommendations

The permit modification application for West Fraser, Inc. in Seaboard, Northampton County, NC have been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined that this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. The DAQ recommends the issuance of Air Permit No. 03937T24.